



JAMES A. NOYES, Director

# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

*"To Enrich Lives Through Effective and Caring Service"*

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March 18, 2004

IN REPLY PLEASE  
REFER TO FILE: **PJ-2**

TO: Each Supervisor

FROM: James A. Noyes  
Director of Public Works

### **LAC+USC MEDICAL CENTER REPLACEMENT PROJECT PROJECT DELAY IMPACT COST AND RECOVERY PLAN CONTAMINATED SOIL AND GROUNDWATER C.P. 70787**

A joint recommendation with the Chief Administrative Officer is scheduled for the March 23, 2004, Board meeting seeking approval to recover 65 calendar days of construction schedule delay incurred and to approve a revised completion date of March 12, 2007, on the LAC+USC Medical Center Replacement Project.

The underlying cause for the 65-day construction delay is the time required for the County's architect to coordinate complete and accurate responses to the contractor's questions regarding waterproofing details and dimensioning of depressions in concrete slab work areas of the Inpatient Tower building. All parties have worked diligently to resolve these discrepancies, and all known issues have now been resolved. Following is more detailed background information regarding this change and an update on the resolution of a previous change order presented to your Board last year.

#### **Project Delay Impact**

Public Works and the contractor completed an impact analysis of project change issues on March 8, 2004, and we agree the project has been delayed a total of 115 calendar days due to rain, wildfires, structural steel gusset plate changes, waterproofing changes for the concrete slab-on-grade, and changes required to accurately locate depressions for equipment in various floors of the Inpatient Tower building. We informed your Board of the potential for a delay impact associated with the gusset plate issue in a Change Order approved by your Board on September 23, 2003, and indicated that we would return to your Board with final negotiated change impact and delay costs. We also indicated the potential for delay associated with rain, wildfires, and concrete slab issues in the January 2004 project monthly report to each of you.

Of the total potential 115-day delay impact, nine days are due to rain that precluded the contractor from conducting construction work since beginning construction on April 1, 2003, and three days are due to wildfires experienced in October 2003, that shut down fabrication of structural steel for the Inpatient Tower building at the contractor's San Bernardino factory. Thirty-eight days of delay are due to structural steel gusset plate and concrete slab issues. As authorized by your Board on September 23, 2003, we executed a change for the direct costs attributable to the gusset plate change within the authority granted in the amount of \$449,336. The remaining 65 days of delay are attributable to the County's architect for insufficient concrete slab waterproofing and inaccurate depressed concrete slab details that prevented the contractor from placing the slab-on-grade while multiple revisions to the drawings were developed by the architect to address the issues. The construction delay impact associated with these changes is summarized in the table below.

<b>Delay Cause</b>	<b>Delay Days</b>	<b>Recovery Cost</b>
Rain	9	non-compensable
Fires	3	non-compensable
Inpatient Tower Gusset Plates	36	non-compensable
IPT Slab-on-Grade/Slab-on Metal Deck (concurrent)	2	non-compensable
Inpatient Tower Slab-on-Grade/Slab-on-Metal Deck	65	compensable
<b>Total Potential Delay</b>	<b>115 calendar days</b>	
Phase I Recovery Plan	<65>	\$850,000.00
<b>Total Remaining Delay</b>	<b>50</b>	
Proposed Revised Project Completion Date	March 12, 2007	
<b>Phase II Recovery Potential</b>	<b>&lt;50&gt; calendar days</b>	<b>non-compensable</b>

The contractor has reported that the cost of delay due to the combined costs of the contractor's overhead and staff for the delay impact associated with this change is approximately \$111,000 per day. Rather than accept this delay cost, estimated by the contractor at \$7,215,000 for the 65-calendar-day delay, we will direct the contractor to resequence and accelerate the work to recover this time. Working with the contractor, we have developed a Phase I plan to recover the 65 days at a cost to the County not to exceed \$850,000, including the cost of overtime work to accelerate the project schedule. Therefore, with approval of this plan, the new project completion date would be delayed 50 days from January 21, 2007, to March 12, 2007. This work is considered to be within the scope of the project, and approval of this action will not require an increase to the project budget. The recommended action will be funded from the construction contingency budget described below. The Chief Administrative Office and Public Works have reviewed this matter with the Project Advisory Committee.

No further recovery opportunities are available at this stage of construction. However, there appears to be opportunity in the future phases of construction. In the next few months, we and the contractor will work jointly to recover all or a portion of the

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remaining 50 calendar days of delay at no cost to the County and will return to your Board by September 2004 to describe our progress.

### **Contaminated Soil and Contaminated Groundwater**

On May 20, 2003, your Board authorized Public Works to negotiate and execute a change order not to exceed \$2,200,000 for remediation of contaminated soil encountered during excavation operations for the new hospital foundations. We are pleased to report that the bulk of this remediation work was completed and executed for \$1,175,000. Based on project geotechnical reports, a small quantity of contaminated soil is still likely to be encountered on the east side of the project and will be remediated when excavation begins for construction of the Central Plant cooling towers in the summer of 2004. With the concurrence of the CAO and the PAC, we have reserved \$600,000 of the original \$2,200,000 approved for soil remediation for the balance of this work. In addition, the contractor requested \$626,000 for the remediation of contaminated groundwater, and we successfully negotiated a settlement of this cost at \$115,000. Our success in the contaminated soil and groundwater negotiations has reduced potential change costs by over \$900,000, and these funds with concurrence by the CAO will be returned to the change order contingency approved by your Board for this project. We will continue to aggressively manage and improve our change management services in an effort to mitigate project costs and schedule delay impact.

To date, 376 changes have been executed with an aggregate value of \$1,665,867. This represents 0.3 percent of the total \$497,883,000 construction contract value. We are approximately 25 percent complete on this project as of March 18, 2004. It is not uncommon for successful hospital projects of the size and magnitude of this project to realize change costs between 5 and 15 percent of the bid construction value and experience corresponding delay impact between 10 and 20 percent of the original construction duration. Following our first year of a four-year construction duration, current trends indicate that our cost and schedule impact is well within these parameters, and construction momentum in the field is excellent.

If you have any questions or need additional information, please call me or your staff may contact David Howard at (626) 300-2300.

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cc: Chief Administrative Office (John Edmisten, Norm Braverman)  
Executive Office  
Department of Health Services (Fred Leaf, Azar Kattan)  
Project Advisory Committee (Nick Patsaouras, A. Redmond Doms, Jerry Epstein)